The letter is dated December 2, 1888, from on board the Peninsular and Oriental s.s. *Verona*, while in the Inland Sea on its voyage back from Japan to China.

Mr. Vaughan Harley says that on October 20 last, having procured the services of an interpreter, he started by train from Yokohama to Tokio, where he obtained a permit from the Japanese Foreign Office to visit the Ban-dai-san valley. From Tokio he went by train to Kuragano, where he engaged, for himself and interpreter, a couple of *jinrickshas*, with two coolies for each. On the following morning he started at 4.45 a.m.,—that is to say, before daylight. It being then early winter in Japan, the day did not break till 6.45. The weather at the time was both cold and rainy; but so long as the roads were good, the coolies, running tandem-fashion, managed to get along at an average rate of from 6 to 7 miles an hour, and accomplished 50 miles a day. On arriving at Inawashiro Lake, after having engaged a guide, he proceeded direct to Ban-dai-san, where the scene that met his eyes, though magnificent, was truly awe-inspiring. It was a veritable valley of devastation. For the whole side of a mountain—3 miles in circumference—had been completely blown away, and hurled as if it had been the mere outside wall of a house, into the valley below, completely burying beneath it four villages and their surrounding farms, along with all their inhabitants. Such was the stupendous force of the explosion, that the mere wind-shock produced by its concussion knocked down, as if they had been nothing more than ninepins, the whole of the trees growing on the opposite mountain-side. The river in the valley, too, was so dammed across by the huge mass of detached mountain as to have formed itself into a small lake, the waters of which now occupy the place where formerly well cultivated crops grew.

The catastrophe which brought about these physical changes appears to have been due to the sudden explosion of superheated pent-up steam, either alone or in conjunction with volatile gases, set free by the decomposing chemical action of heat and water on the constituents of the subjacent mineral strata. The whole surrounding ground is at present full of hot springs, giving forth volumes of steam, while from every crack and crevice in the earth issues, either continuously or spasmodically, clouds of hot watery vapour, so that one has to be very careful where he places his feet. Not only the fact of the presence of these hot springs, but likewise of the still frequent occurrence of earthquakes, shows that the same agent or agents that rent the mountain in twain are still actively at work. Even in the morning of the day following his visit (at 5 a.m.) there was a shock of earthquake, which, although it was strong enough to admit of his feeling the earth quiver beneath him, the people spoke of as being such a mild one as to merit no attention. He says, moreover, that the appearance presented by the standing half of the cleft mountain, with its surrounding clouds of steam, was, to his way of thinking, far grander, and vastly more awe-inspiring, than are either the geysers of Iceland or the yet greater and more numerous ones he had seen in the volcanic district of the Yellowstone Park in North America. For here the scene he witnessed not only plainly pointed to the cause, but gave him ocular demonstration of its stupendous power, and made him feel that, if superheated steam could thus easily, apparently, rend asunder a solid mountain of rock, there could be no difficulty in understanding why the live volcanoes scattered over the globe were looked upon as safety-valves for the effects of the various chemical decompositions brought about by heat and water in the molten minerals within the bowels of the earth. For were there no outlets even to the superheated steam—heated by the vast internal fires up to a point when it possibly resolves itself into its elements—he could readily enough imagine, from what he saw, that its sudden explosion might suffice to shatter the earth's crust into fragments—just, perhaps, as takes place in some of the heavenly bodies, fragments from which ever and anon fall, in the shape of meteorites, upon the surface of our globe. Having got back to the tea-house at 7.15 p.m., leg-tired and foot-sore, but thoroughly satisfied with all he had seen and learned, immediately after a hot bath—a natural one, for there is no need of artificially heating bath-water here, Nature does that amply for them—and supper, he went to bed, the bedstead being the floor, as is usual in Japan. Next morning, he started on his return journey to Yokohama, and arrived in good time for the sailing of the *Verona* on the 25th for Hong Kong, where he immediately posted his letter, in order to catch the homeward mail.

NOTES.

THE Vice-Chancellor of Cambridge University has appointed Prof. Stokes, P.R.S., Rede Lecturer for the present year.

MR. ISAAC ROBERTS, the eminent photographic astronomer, has presented to Dunsink Observatory a photographic reflecting telescope with a mirror by With of 15 inches aperture. The generous donor is erecting the instrument at his own expense, and it will be employed in furthering the study of star parallax—a study with which Dunsink has been so long associated.

ON Thursday evening last, the first meeting of the Institution of Electrical Engineers was held in the rooms of the Institution of Civil Engineers, at George Street, Westminster. Mr. Edward Graves, retiring President, occupied the chair. He opened the proceedings by announcing that the last legal steps had been taken to change the name of their body from "Society of Telegraph Engineers and Electricians," by which name it had hitherto been known, to "Institution of Electrical Engineers." Sir William Thomson, President for the year, then delivered his inaugural address on "Ether, Electricity, and Ponderable Matter."

THE forty-second annual general meeting of the Institution of Mechanical Engineers will be held on Wednesday, January 30, Thursday, January 31, and Friday, February 1, at 25 Great George Street, Westminster, by permission of the Council of the Institution of Civil Engineers. The chair will be taken by the President at 7.30 p.m. on each evening. The President, Mr. Edward H. Carbutt, having been in office for two years, will retire, and will induct into the chair the President-elect, Mr. Charles Cochrane.

THE annual general meeting of the Anthropological Institute of Great Britain and Ireland will be held on Tuesday, the 22nd inst., at half-past eight o'clock p.m. Mr. Francis Galton, F.R.S., will take the chair, and deliver the Presidential address.

AT a meeting of the Council of the Sanitary Institute on January 9, Mr. G. J. Symons, F.R.S., in the chair, it was decided that two courses of twelve lectures for sanitary officers should be held, the first course to begin in March, the second in October.

AT the Central Institution, Exhibition Road, during the spring term, Prof. Armstrong will give about ten lectures on some of the more important current problems in chemistry, on Mondays, at 4.30 p.m., commencing Monday, January 21. The following subjects will be dealt with as far as time permits: the nature of chemical change; the interdependence of chemical change and electrolysis; the molecular composition of gases, liquids, and solids; the nature of solutions; physical constants; laws of substitution and isomeric change as bearing on the problem of the nature of chemical change; valency; geometrical isomerism and allo-isomerism.

ZOOLOGISTS will regret to hear of the death of Dr. Heinrich Alexander Pagenstecher. His "Allgemeine Zoologie," in four volumes, the first of which appeared in 1875, the last in 1881, is well known. For a good many years he was a Professor of Zoology at the University of Heidelberg. In 1882, after having retired from public life, he was persuaded to accept the post of Director of the Museum of Natural History at Hamburg. His death—which occurred on January 5—was due to heart disease. He was in his sixty-fourth year.

THE death is announced from Southsea, after a very short illness, of Sir William O'Shaughnessy Brooke, F.R.S., in the eightieth year of his age. From 1852 till 1862 he was Director-General of Telegraphs in India. He was created a Knight Bachelor in 1856 for his distinguished services in establishing the electric telegraph service in our Indian possessions.

THE Rev. Churchill Babington, D.D., F.L.S., died on Sunday morning last at Cockfield Rectory. He was well known as a botanist, and contributed to Sir J. Hooker's *Journal of Botany and Kew Miscellany*. Dr. Babington was one of the honorary Fellows of St. John's College, Cambridge.

AT a meeting of the Royal Botanic Society, held last Saturday, the Secretary reported that the recent fogs had done much damage to the plants in the conservatories, causing many of them to shed both leaves and flower-buds. More especially had this been the case with Australian plants, which, from enjoying in their own country a large amount of sunlight, were found less capable than any others of contending against the vicissitudes of London weather. Mr. G. J. Symons, F.R.S., said he believed that fogs were increasing not only in London, but generally. Plants, however, suffered not only from the absence of light, but from the pores of their leaves becoming filled up with the sulphurous, sooty matters contained in London fogs.

INTELLIGENCE received at San Francisco from Hawaii states that Kilauea, the largest volcano in the island, is in a state of eruption.

A NEW mineral of exceptional chemical interest has been discovered by Mr. Sperry, chemist to the Canadian Copper Company, of Sudbury, Ontario, Canada. It is an arsenide of platinum, $PtAs_2$, and is the first mineral yet found containing platinum as an important constituent, other than the natural alloys with various metals of the platinum group. A considerable quantity of the mineral, which takes the form of a heavy brilliant sand composed of minute well-defined crystals, has been thoroughly investigated by Prof. Wells, who names it "sperrylite," after its discoverer; and the crystals have also been measured and very completely examined by Prof. Penfield. The sand is generally found to contain fragments of chalcopyrite, pyrrhotite, and silicates, which may be removed by treatment first with aqua regia to remove sulphides, and afterwards with hydrofluoric acid to remove silicates. After this treatment the sperrylite sand is seen to have remarkably increased in brilliancy, every grain showing extremely brilliant crystal faces, of a tin-white colour, resembling that of metallic platinum itself. It is very heavy, possessing at 20° a specific gravity of 10·6. Strangely enough, however, although so heavy, the sand shows a marked tendency to float upon water, owing to its not being easily wet by that liquid; even when the grains do sink, they almost invariably carry down bubbles of air along with them. This peculiar property is retained even after boiling with caustic potash and washing with alcohol and ether, and cannot therefore be attributed to any surface impurities. Sperrylite is only slightly attacked by the strongest aqua regia, even after boiling for days, and it also remains unchanged when heated in a bulb tube to the temperature of melted glass. Heated in an open tube, however, it gives off a portion of its arsenic as a sublimate of the trioxide, the residue then fusing. When dropped upon a piece of red-hot platinum foil it melts, evolving white fumes inodorous arsenious oxide, and forming a porous excrescence in colour resembling metallic platinum upon the surface of the foil. Analyses show that sperrylite contains 52·5 per cent. of platinum; mere traces of rhodium and palladium, in quantity less than 1 per cent., being also present. Prof. Penfield shows that the crystalline form is cubic, the habit being of the pyritohedral type of hemihedrism, very similar to the various members of the pyrites group, in which an atom of iron, nickel, or cobalt, is united to two atoms of sulphur, arsenic, or antimony. The forms generally developed are the cube $\{100\}$, octahedron $\{111\}$, pyritohedron $\pi\{210\}$, and occasionally the rhombic dodecahedron $\{110\}$. It is very curious that in the treatment with aqua regia, the cube and octahedron faces remain unattacked, while the acids exert a decided action upon the pyritohedral (pentagonal dodecahedral) faces, entirely destroying their power of reflecting light. This similarity between sperrylite and the pyrites of the iron group is rendered all the more important in view of the fact that the platinum and iron groups both occur in the same vertical row (the eighth) in Mendelejeff's periodic classification.

WE referred last week to a proposal for a Meteorological "Congress," to be held in Paris during this year. It should be clearly understood that the meeting in question has originated with the French Meteorological Society, in connection with the Exhibition of 1889, and is quite distinct from the meetings organized by the Committee appointed by the Congress of Rome. This Committee, as stated in Mr. Scott's letter (NATURE, vol. xxxviii. p. 491), has decided to convene a meeting of directors of the meteorological services, at some future time, instead of an official Congress, such as those held at Vienna and Rome; but no such meeting has been arranged by the Committee for the year 1889.

THE Weekly Weather Report issued by the Meteorological Council has been enlarged and considerably improved with the new year. The statistical pages remain unaltered: they refer exclusively to the temperature, rainfall, and sunshine within the United Kingdom. The other portion, which until the end of last year consisted of a brief summary of the weather for each day, accompanied by copies of the daily charts of pressure and temperature over North-Western Europe, has undergone a great change. The area of the charts has been extended so as to cover the whole of Europe, the Mediterranean, Tunis, and Algeria, the hours represented being 8 a.m. for temperature and weather, and 8 a.m. and 6 p.m. for barometer and wind. The enlargement has necessitated the addition of two pages to the Report, the whole forming a most interesting record of the weather over this wide area. The first number is chiefly remarkable for the view it gives us of the Continental anticyclone which spread from Moscow, where the barometer exceeded 31 inches, westward to the Atlantic; the changes in position and intensity being in sympathy with the movements of cyclonic disturbances in the Mediterranean and in the Arctic regions. Towards the close of the week the decreasing intensity of the high-pressure system became favourable to cyclonic weather on our own shores, which afterwards completely dispelled the thick fogs and severe frost. The great cold felt in this country belonged to the same area as that which spread over the Continent, the thermometer being as much as 20° below zero at zero, and gradually rising thence to the shores of the Atlantic.

THE Report of the Smithsonian Institution for the year 1887–88 has been issued. The Secretary, Prof. Samuel P. Langley, refers, as was to be expected, in terms of the highest appreciation, to the character and work of his predecessor, Prof. S. F. Baird. The Institution, as usual, has been doing much excellent work, but Prof. Langley complains that the funds at its disposal are not adequate to its wants. The amount bequeathed by Mr. Smithson, and accepted by Congress, is no longer so valuable as it was half a century ago. "I do not now refer," says Prof. Langley, "merely to the fact that we measure all things by another scale in 1888 from what we did in 1836; or that, owing to the immense increase of public wealth, the capital of the original bequest, which then was greater than any but a few private fortunes, has become relatively so inconsiderable to-day. More than this is meant. It is meant that the actual purchasing power of each dollar is, for our purposes, notably less; that it is being forced upon us that we cannot print as many books, or pay as many *employés*, or make as many researches, as when the scheme of expenditure was first fixed, and that, consequently, a scheme which was wise then, because not only desirable but feasible, is not necessarily so now." Prof. Langley expresses a hope that an increased income may be provided by the Government and by private benefactors.

WE have received the "Bibliography of Astronomy for the Year 1887," compiled by William C. Winlock, and published by the Smithsonian Institution. As a reference list it will be found to be very useful. Most of the various contributions to astronomy published during the year 1887 in the many scientific journals and Transactions of Societies, as well as many more elaborate publications, have been inserted. A few of the titles, as the author says, have been taken from reviews or book-catalogues, and, by means of an alphabetical arrangement of the different subjects of astronomy, references to them can be very easily obtained.

Two weeks ago we printed a brief account of a method employed by Prof. Pickering for enumerating nebulæ photographed in a given part of the heavens, and comparing them with those given in pre-existing catalogues, and by this means increasing the number of known nebulæ. The following is a rather more detailed account of the subject. The region selected for these experiments extends from 5h. 10m. to 5h. 50m. in right ascension, and from − 10° to 5° in declination. The instrument employed was a Bache telescope, having a photographic doublet, with an aperture of 8 inches and a focal length of 44 inches; and, by means of this, negatives 10° square were obtained, the definition included in a central circular area of 7° in diameter being very good. The work of examining the plates very carefully was intrusted to Mrs. Fleming. Each plate was laid on an inclined plane similar to a retouching desk used in photography, and, by means of a strong magnifying glass, thoroughly studied. Whenever a marking on the negatives appeared to resemble a nebula, the co-ordinates of it were accurately noted, but great care was taken to make sure that the marking was not due to a piece of dust or a defect in the film. The approximate right ascensions and declinations of these objects were next determined from the configuration of the adjacent stars on the charts of the *Durchmusterung*. Then, by comparing the measurements obtained on the plates, and those on the charts, several of the markings coincided, thereby showing that they had been both photographed and catalogued, while in some cases those which had been catalogued had not been photographed, and in other cases some not catalogued were photographed. From the twenty-seven negatives taken fourteen of the objects on them were contained both in the photographs and in the catalogue. Four in the catalogue were not photographed, while twelve, which were not catalogued, were detected on the negatives, and so were probably new. In some instances the back of the plate was covered with a film of shellac and lampblack so as to absorb the light from the rear surface of the plate. The region covered in the above experiments was about four thousandths of the entire sky, so that by photographing the whole heavens a great number of new clusters and nebulæ would be brought to light. From these experiments a very interesting result is disclosed, especially as regards the four nebulæ which were in the catalogue and were not photographed, which suggests that these nebulæ gave different spectra in the ultra-violet from those that were photographed and not catalogued

WE have received Part 4, vol. ii., of the Journal of the College of Science, Imperial University, Japan. It contains papers on the determination of the thermal conductivity of marble, by Kenjirō Yamagawa; on the combined effects of torsion and longitudinal stress on the magnetization of nickel, and on the magnetization and retentiveness of nickel wire under combined torsional and longitudinal stress, by H. Nagaoka; and on the specific volume of camphor of borneol, by Mitsuru Kuhara.

A DESCRIPTIVE Catalogue of the Sponges in the Australian Museum, Sydney, by Dr. R. von Lendenfeld, has been printed by order of the trustees of that institution. Dr. Lendenfeld was intrusted with the compilation of this work in 1885. Early in the following year he changed his residence from Sydney to London, so that some delay was rendered inevitable. He considers, however, that the loss of time was amply made up by the advantage he enjoyed of being able to study the collections in the British Museum, and to compare the types of other authors with the Australian Sponges.

THE Executive Committee for the reception of the British Association on their visit to Bath met on Thursday last, when it was announced that, after paying all expenses, there remained a surplus of £950. It was decided, with one dissentient, to recommend to the subscribers that the balance be retained intact to form the nucleus of a fund for building an art gallery in Bath.

A FEW weeks ago (says the *Cheltenham Examiner*), Mr. Francis Day, of Kenilworth House, Pittville, presented a fine collection of Indian birds to a Museum at Cambridge. Mr. Day has now given the remainder of his zoological collection to the British Museum. The gift consists of about 1500 specimens of Indian fishes, 500 of which are stuffed, and the remainder preserved in spirit. There are also a large quantity of English fishes, both stuffed and in spirit; about 1000 specimens of Crustaceans, collected from all parts of India and Burmah, and some British Crustacea, including some from the collection of Prof. Malm. Among the Indian fishes are specimens from the celebrated collection of Dr. Jordan, and the British fishes include especially interesting hybrid *Salmonidæ*, from Sir James Maitland's fish-farm at Howietoun in Scotland, in which Mr. Day takes great interest. There is, in addition, a miscellaneous collection of zoological specimens from the East, including a large crocodile.

THE following arrangements have been made at the Royal Institution of Great Britain:—On Tuesday next, January 22, Prof. G. J. Romanes will begin the second part of his course of lectures entitled "Before and after Darwin," the subjects being "The Evidences of Organic Evolution and the Theory of Natural Selection." On Thursday next, January 24, Prof. J. W. Judd, F.R.S., will begin a course of four lectures on "The Metamorphoses of Minerals." At the first Friday evening meeting of the season, January 25, at 9 p.m., Prof. G. H. Darwin, F.R.S., will give a discourse on "Meteorites and the History of the Stellar Systems."

THE evening lectures at the Royal Victoria Hall for the next few weeks are arranged as follows:—January 22, Mr. J. D. MacClure, "Shooting Stars"; January 29, Mr. F. W. Rudler, "Coal"; February 5, Prof. Reinold, "Torpedoes"; February 12, Commander Cameron, "Africa and the Horrors of Slavery."

THE additions to the Zoological Society's Gardens during the past week include a Vulpine Phalanger (*Phalangista vulpina* ♂)

from Australia, presented by Mr. F. Buckland; a Common Paradoxure (*Paradoxurus typus* ♀) from India, presented by the Rev. J. De Gruchy; a Tawny Owl (*Syrnium aluco*), European, presented by Mr. T. Gunn; a Stump-tailed Lizard (*Trachydosaurus rugosus*) from New Holland, presented by Mr. C. Elliott; a Grey Ichneumon (*Herpestes griseus*) from India, presented by Mr. C. L. Curtis; a Bonnet Monkey (*Macacus sinicus* ♀) from India, two Red-backed Pelicans (*Pelecanus rufescens*) from West Africa, a Masked Parakeet (*Pyrrhulopsis personata*, yellow var.) from the Fiji Islands, deposited; five Clotbey's Larks (*Ramphocorys clotbeyi*), five Algerian Shore Larks (*Otocorys bilopha*), two Rosy Bullfinches (*Erythrospiza githaginea*) from Algeria, purchased.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1889 *JANUARY* 20–26.

(For the reckoning of time the civil day, commencing at Greenwich mean midnight, counting the hours on to 24, is here employed.)

At Greenwich on January 20

Sun rises, 7h. 56m.; souths, 12h. 11m. 24·4s.; sets, 16h. 26m.: right asc. on meridian, 20h. 11·7m.; decl. 20° 1′ S. Sidereal Time at Sunset, 0h. 27m.

Moon (at Last Quarter January 24, 16h.) rises, 19h. 0m.*; souths, 2h. 29m.; sets, 9h. 45m.: right asc. on meridian, 10h. 27·3m.; decl. 13° 31′ N.

Planet.	Rises.	Souths.	Sets.	Right asc. and declination on meridian.	
	h. m.	h. m.	h. m.	h. m.	° ′
Mercury..	8 42 ...	13 12 ...	17 42 ...	21 12·5 ...	17 44 S.
Venus.....	9 37 ...	15 7 ...	20 37 ...	23 7·3 ...	6 31 S.
Mars	9 24 ...	14 41 ...	19 58 ...	22 42·2 ...	9 11 S.
Jupiter....	5 50 ...	9 46 ...	13 42 ...	17 45·7 ...	23 3 S.
Saturn....	17 55*...	1 26 ...	8 57 ...	9 24·1 ...	16 26 N.
Uranus ...	0 0 ...	5 23 ...	10 46 ...	13 22·2 ...	7 59 S.
Neptune..	12 7 ...	19 50 ...	3 33*...	3 51·2 ...	18 25 N.

* Indicates that the rising is that of the preceding evening and the setting that of the following morning.

Meteor-Showers.

	R.A.	Decl.	
	°	°	
Near κ Ursæ Majoris	134 ...	48 N.	
From Coma Berenices ...	180 ...	24 N. ...	Swift; streaks.

Variable Stars.

Star.	R.A.	Decl.			
	h. m.	° ′		h. m.	
U Cephei	0 52·5 ..	81 17 N. ...	Jan. 23,	20 52	*m*
S Persei	2 14·9 ...	58 5 N. ...	,, 26,		*M*
Algol	3 1·0 ...	40 32 N. ...	,, 21,	23 17	*m*
			,, 24,	20 6	*m*
λ Tauri...	3 54·6 ...	12 11 N. ...	,, 25,	1 18	*m*
ζ Geminorum ...	6 57·5 ...	20 44 N. ...	,, 22,	23 0	*M*
R Canis Majoris ...	7 14·5 ...	16 11 N. ...	,, 20,	20 17	*m*
		and at intervals of		27 16	
T Hydræ	8 50·3 ...	8 43 S. ...	Jan. 20,		*M*
W Virginis	13 20·3 ...	2 48 S. ...	,, 22,	22 0	*m*
V Boötis	14 25·3 ...	39 21 N. ...	,, 20,		*M*
R Boötis	14 32·3 ...	27 13 N. ...	,, 22,		*M*
T Vulpeculæ ...	20 46·8 ...	27 50 N. ...	,, 21,	1 0	*m*
			,, 22,	3 0	*M*
Y Cygni	20 47·6 ...	34 14 N. ...	,, 21,	5 40	*m*
		and at intervals of		36 0	
δ Cephei	22 25·0 ...	57 51 N. ...	Jan. 23,	4 0	*M*
			,, 26,	22 0	*m*.

M signifies maximum; *m* minimum.

GEOGRAPHICAL NOTES.

THE following letter from Mr. Stanley to Tippoo Tib has been received in Brussels:—"Boma of Banalya-Murenia, August 17, to the Sheik Hamed Ben Mahomed [Tippoo Tib] from his good friend, Henry Stanley. Many salaams to you. I hope you are in good health, as I am, and that you have remained in good health since I left the Congo. I have many things to say to you but I hope I shall see you face to face before many days. I reached this place this morning with 130 Wangwana, and three soldiers and sixty-six natives belonging to Emin Pasha. This is now the eighty-second day since we left Emin Pasha on the Nyanza, and we have only lost three men all the way. Two of them were drowned, and the other ran away. I found the white men whom I was looking for. Emin Pasha was quite well, and the other white man, Casati, was quite well also. Emin has ivory in abundance, cattle by thousands, and sheep, goats, fowls, and food of all kinds. We found him to be a very good and kind man. He gave numbers of things to all our white and black men, and his liberality could not be exceeded. His soldiers blessed our black men for their kindness in coming so far to show them the way, and many of them were ready to follow me at once out of the country. But I asked them to stay quiet a few months that I might go back and fetch the other men and goods I had left at Yambunga, and they prayed to God that he would give me the strength to finish my work. May their prayer be heard. And now, my friend, what are you going to do? We have gone the road twice over. We know where it is bad and where it is good, where there is plenty of food and where there is none, where all the camps are and where we shall sleep and rest. I am waiting to hear your words. If you go with me it is well. If you do not go it is well. I leave it to you. I will stay here ten days, and then I go on slowly. I move from here to a big island two hours' march from here, and above this place there are plenty of houses and plenty of food for the men. Whatever you have to say to me my ears will be open with a good heart, as it has always been towards you. Therefore if you come, come quickly; for on the eleventh morning from this I shall move on. All my white men are well; but I left them all behind, except my servant William, who is with me.—(Signed) STANLEY.' This letter, which was brought by a messenger to Stanley Falls, reached Brussels by post on Tuesday evening, and is the only one from Mr. Stanley which has reached the coast. The remainder of the letters brought by the messenger remain at Stanley Falls, and will arrive in Europe two or three months hence.

ANOTHER of the few remaining mysteries of African geography has just had a little light shed upon it. For many years a lake has been conjecturally placed upon our maps some 15° to the east of the Cameroons, under the name of Liba. No white traveller has ever seen it. Quite recently, however, Dr. Zintgraff, who has been exploring in the Cameroons interior, has obtained information from some natives of the region in which Lake Liba is placed, that leads him to the conclusion that the so-called Lake Liba is probably only a lake-like expansion of a river of that name which exists in the country of his informants. Should the statements of the natives be confirmed, it would seem that the lake, or rather river, to which it belongs is connected neither with the Congo nor the Shari.

FURTHER light has been thrown upon the important question of the supposed waterway between Macluer Inlet and Geelvink Bay, in New Guinea, the existence of which was reported by Captain Strachan. It appears that Dr. A. Meyer's explorations, the results of which seem incompatible with Captain Strachan's conclusions, have recently received important confirmation from the investigations of certain Dutch officials. Lieut. Ellis, who explored the north and north-east coast of New Guinea from May to November 1887, was unable to find the reported water connection, or to gain any information about it from the natives. His own investigations and the inquiries instituted by him force him to the certain conclusion that no such connection exists; and in this he is supported by the opinion of Dr. Host, another explorer.

DR. SCHWEINFURTH is at present engaged in exploring the little-known region of the Menakha Mountains. Towards the end of last year he left Aden for Hodeida, on the Red Sea, for the purpose of visiting these mountains and the town of Sana. Dr. Schweinfurth carried letters from the Porte recommending him to the care and protection of the authorities; and as he is liberally supplied with funds from Berlin, he hopes to make a thorough exploration of the district, which has been but little visited by Europeans.

THE number of the *Zeitschrift* of the Berlin Geographical Society containing the geographical bibliography of the past year has just been issued. As usual it contains a practically exhaustive list of all publications, papers, and maps that have appeared in the various departments of geography.